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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NGUYEN, PHUONGCHAU BA

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/974,679

Applicant(s)

TSUBOUCHI ET AL.

Examiner

Phuongchau Ba Nguyen

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 2 and 6-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4 and 12-16 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Objections

1. Claims 3 and 15 is objected to because of the following informalities:

-Claim 3, line 3,

“AS-CDMA” should be changed to

---Approximate Synchronized CDMA (AS-CDMA)---

-Claim 15, line 4,

“the most suitable” should be changed to

---a most suitable timing---

-Claim 15, line 5,

the second occurrence “the” should be changed to ---a---.

-Also, since applicant had elected claims 1, 3-5, 12-16 to be examined, the dependency of dependent claims 3-5 and 12-16 should be changed to depend ONLY on the elected parent claims to avoid lack of antecedent basis.

Appropriate correction is required.

(Note: since most of dependent claims are a multiple dependency claim, i.e., claim 15 has a multiple dependency on claims 1-14, thus the broadest dependency would be interpreted to the dependent claim, i.e., claim 15 would depend on claim 1).

Claim Rejections – 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 12-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

-Claim 12 recites the limitations “the uplink” and “said packet” in line 4;

-Claim 13 recites the limitation “said cell”, “the cell” and “the preamble” in line 4, “the downlink” in line 5;

-Claim 14 recites the limitations "said data" in line 4, "the phase correction" and "the frequency offset correction" in line 5, "said data" in line 6, and "the absolute synchronizing detection" in lines 6-7;

-Claim 15 recites the limitations "the correlation" in line 2, "the receiving portion" and "the receiving timing" in line 3;

-Claim 16 recites the limitations "the synchronization of the spread code" in lines 2-3, "the integral networks" in line 5, "the transmission timing control information" in line 6, "the receiving flame" in lines 7-8, and "the chip timing" in line 8.

There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections – 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors

Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology

Technical Amendments Act of 2002 do not apply when the reference is a U.S.

patent resulting directly or indirectly from an international application filed

before November 29, 2000. Therefore, the prior art date of the reference is

determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-

AIPA 35 U.S.C. 102(e)).

5. Claims 1, 4, 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Frank (6,731,622).

Regarding claim 1,

Frank (6,731,622) discloses a cellular wireless communication network system comprising a plurality of base stations and a plurality of mobile stations, wherein said base station are connected together with wireless communication (fig.1).

Regarding claim 4,

Frank further discloses wherein communication between one of said base stations and said mobile stations is achieved by a packet CDMA communication method (col.5, lines 24-29; col.6, lines 23-30).

Regarding claim 15,

Frank further discloses wherein said base station takes the correlation of the uplink at the receiving portion and then detects the receiving timing, calculate a timing that said receiving timing becomes the most suitable, inserts the most suitable timing as the timing controlling information into the frame for downlink and send the data (col.3, line 49-col.4, line 13).

Claim Rejections – 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frank (6,731,622) in view of Kuroyanagi (6,421,367).

Regarding claim 3,

Frank does explicitly disclose wherein said wireless communication with which said base stations are connected together, is achieved by an AS-CDMA communication method (1).

However, in the same field of endeavor, Kuroyanagi (6,421,367) discloses a wireless communication of AS-CDMA, see col.3, lines 38-56 (corresponding to (1)). Therefore, it would have been obvious to an artisan to apply Kuroyanagi's teaching to Frank's system with the motivation being to avoid co-channel interference in CDMA system.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frank (6,731,622) in view of Ogawa (6,728,305).

Regarding claim 16,

Frank does not explicitly disclose (1) wherein said mobile station establishes the synchronization of the spread code by detecting the spread code in the preamble portion at the receiving portion of the downlink, after making the reverse spreading of the spread code, demodulates the data through the integral networks, (2) then extracts the transmission timing control information which is inserted in the received frame, controls the chip timing of the reverse spread code based on the transmission timing controlling information and transmit the data as the uplink.

However, in the same field of endeavor, Ogawa (6,728,305) discloses a despreading unit of the CDMA system in figure 4 for reversely spread the received signal in the reverse spreader 16 using corresponding one of the plurality of spread codes, see col.7, lines 25-36 (corresponding to (1)). Ogawa also discloses time delay in spreading, see col.7, line 37-col.8, line 4-although there was no indication of extracting the transmission timing control in the reverse spreading shown but the despreading unit reversely spread the received signal corresponding to the time and code embedded in the received signal,

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thus the time delay was spread at transmitting and now it would be reversely spread at receiving—emphasis added (corresponding to (2)). Therefore, it would have been obvious to an artisan to apply Ogawa's teaching to Frank's system with the motivation being to avoid interchannel interference and varying propagation delay in a mobile communication.

Allowable Subject Matter

9. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchau Ba Nguyen whose telephone number is 571-272-3148. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 2:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax

phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Phuongchau Ba Nguyen
Examiner
Art Unit 2665

DUCHO
PRIMARY EXAMINER



12-12-05